ATLANTIC OFFSHORE LOBSTERMEN'S ASSOCIATION

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To: Michael Asaro, Marine Mammal/Sea Turtle Recovery Coordinator
Colleen Coogan, TRT Coordinator
From: David Borden, Executive Director
Subject: Alternative proposal for Statistical Area 537

During the October 2018 meeting of the ALWTRT, several individuals and groups, including representatives of the Humane Society, Defenders of Wildlife, and Center for Biological Diversity, New England Aquarium, and Whale and Dolphin Conservation Trust, advocated for adoption of additional right whale protection measures for the area South of Cape Cod, i.e. NOAA Statistical Area 537 (Figure 1). These proposals are available on the NOAA website - https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/index.html. They collectively proposed alternatives that would generally prohibit fishing with fixed gear during the period of November 1 through May 14, or some segment of the year thereof, when in fact there is no independent body of scientific proof that this area is contributing to the decline of right whales. There is no cause and effect data to support closure of the area, just supposition and conjecture. That point notwithstanding, I advanced a different concept for the area at the TRT meeting, and this letter articulates the specifics and rationale for such a concept. I, therefore, request that NOAA include this option in the range of options under consideration for analysis for this specific area, and as a stand-alone option. It is also my intent that this option be structured as a replacement option for all alternatives that call for closure of Statistical Area 537.

Proposal: In a portion of Statistical Area 537, as identified below, adopt all or some components of the following, as a means of protecting right whales:

- Area Description: The northern portion of Area 537 will be included, which extends from the current northern border of 537, south to 10 miles south of the southern boundary of the shipping channel (Figure 2). The east and west boundary of 537 will remain the same.
- Vessel speed restrictions: NOAA will develop and employ an aerial survey to monitor the Area 537 portion of the shipping channel (hatched area) from November 1 to May 14, or during the timeline selected, and impose a mandatory speed restriction on all vessels when there are three or more right whales present. This requirement is similar to, but more stringent than, the existing voluntary speed restriction process.
- Gear restrictions: In addition to the above measures, the following gear restrictions would be implemented in the area:
    - Institute more stringent, year-round, weak-line requirement for all vertical (buoy) lines in all pot fisheries in the grey area (Figure 2). Two options should be analyzed: one for a 600 lb. weak-link and another for an 1100 lb. weak-link. The requirement would only apply to pot gear vertical lines, not pot fishery ground lines or gillnet gear.
    - Require colored vertical lines in the entire area (Figure 2) for all fisheries. Current suggestions from the TRT focus on red and or orange, but other colors could be

used if recommended by TRT/NOAA. New line should include a unique country of origin tracer in the line to identify it as U.S. gear.

- Require 1700 lb. breaking strength line in the area for all fixed gear fisheries.

Statement of problem/rational for this alternative: During the last several years, the area in question has harbored higher than historically normal concentrations of North Atlantic right whales (NARWs) during the early winter and spring months, prior to their annual movement into the Gulf of Maine and north into Canadian waters. Although the reasons for these aggregations are poorly understood, the higher abundance has been confirmed by a variety of monitoring methods. Unfortunately, past behavior cannot be used as a predictor of future behavior, since environmental conditions are also changing rapidly in this area[1]. Therefore, a flexible response is needed that enhances the conservation potential of NARWs, while minimizing impacts on fixed gear fisheries.

The area is heavily fished by numerous fisheries, using different gear types with varying FMP and whale-related regulations, such as inshore and offshore lobster, the majority of the Jonah crab fishery, fixed gear monkfish and skate fisheries, as well as fisheries for scup, sea bass, and flounder. In addition, there are different ALWTRP requirements, depending on the location fished within the larger 537 Statistical Area, and the spatial demarcations used by the TRP do not align with FMP boundaries. This is particularly pronounced in the portion of 537 that is in an overlap area for two Lobster Conservation Management Areas, meaning that lobstermen from Area 2 and 3 may be fishing adjacent to each other with different gear riggings (grey area, Figure 1).

Further complicating the problem, the southern portion of the area is a major transit lane for the coastal shipping industry, which is not currently restricted by NOAA speed restrictions, nor monitored adequately. Also, much of the area is within BOEM's MA/RI Wind Energy leasing grounds (Figure 2) which will be active industrial construction sites within the next few years, yet we know little about the oceanographic and fisheries impacts of this industry on right whales. The alternative offered herein generally addresses the ocean uses within NOAA's statutory jurisdiction, and directly counters suggestions for an area closure, which may result in an unintended redirection of effort into areas with higher present day, or future, concentrations of NARWs.

As is well documented by NOAA data, Area 537 is an extremely productive spot from a fisheries perspective. Attached are figures that depict landings in Rhode Island and Massachusetts for Jonah crab, curtesy of RIDEM and MADMF respectively (Figures 3 and 4). These are included as an example of the importance of this area to fishing; they are not intended be a viewed as an inclusive analysis of potential impacts. NOAA staff will no doubt provide a far more detailed analysis of potential impacts for all fisheries during the spring meeting of the TRT. Yet, what is quickly apparent from the preliminary data is that Area 537 harbors important fixed gear fisheries, which sustain coastal communities and provide hundreds of jobs to various ports along the coast. These are the fisheries which would be shut out during a closure.

[1] Saba, V.A., Griffies, S.M., Anderson, W.G., Winton, M., Alexander, M., Delworth, T.L., Hare, J.A., et al. 2016. Enhanced warming of the Northwest Atlantic Ocean under climate change. Journal of Geophysical Research: Oceans. DOI: 10.1002/2015JC011346.

Fishery impacts of area closures are highly dependent upon both the spatial-temporal extent of the closure and how the affected fleets respond. Predicting impacts, particularly without a detailed closure proposal, is nearly impossible. However, what can be gleaned from the last three decades of closure history in New England waters is that the industry will respond in unpredictable ways, which results in unexpected redirection of effort. The Jonah crab/lobster mixed crustacean fishery currently operating in 537 utilizes some of the largest and newest vessels in the SNE fleet. Their owners will certainly redirect effort to secure their investments; while we can't forecast where the gear would redeploy, it should be noted that these vessels hold permits that allow them to fish in areas east of Area 537, the Gulf of Maine, and Georges Bank, which each harbor their own seasonal aggregations of NARWs and encompass the whales migratory routes from the mid-Atlantic to Canada. Do we really want to mandate a restrictive closure measure, when it is impossible to predict the consequence of a change in fishing behavior? Surely, we have learned the lesson of unintended consequences of ALWTRP restrictions that don't fully consider the operational and management constraints of the regulated fisheries.

The solution is to not mandate the removal of the gear at all, because current FMP requirements have been aggressively downsizing the industry for years. Rather, we need to deal with the problem where and when it occurs and establish a framework for enhanced protection and improved monitoring. During the last 10+ years NOAA and the Atlantic States Marine Fishery Commission (ASMFC) have repeatedly implemented FMP requirements that have downsized the lobster industry in Lobster Management Area (LMA) 2 and 3 (Figure 5). By 2020 the two industries will have cut traps by approximately 50%, and thus vertical lines the same or more. When coupled with the ALWTRP requirements of trawling up, we estimate a reduction of 60 + % of the vertical lines in these specific areas, which will continue as permits and traps are transferred and subjected to the 10% conservation tax. In addition, the leadership from these two LMA's are actively considering a trap buyout as a mitigation measure in response to the industrial development of the wind energy area. The leased and soon to be leased bottom in Figure 2, encompasses in excess of 1000+ square miles, most of which falls within Statistical Area 537 in the area of recent NARW abundance.

Finally, I urge NOAA staff to view these measure in a holistic manner when they evaluate this proposal. The use of 1700 lb. rope alone would result in a 75% reduction in animal entanglements according to the analysis by the N.E. Aquarium staff, but when combined with a lower weak-link requirement, would have significantly more impact. In addition, during 2011-2015 an average of approximately one documented NARW serious injury or mortality was attributable to ship strikes (NOAA 2017 Stock Assessment), thus the speed restriction would provide substantially more protection. Combined these measures could substantially lower the probability of any mortality or serious injury in this area without the closure of the area.

Please circulate to other members of the TRT. Thanks for the opportunity to comment and happy to answer questions should they arise.

David Borden

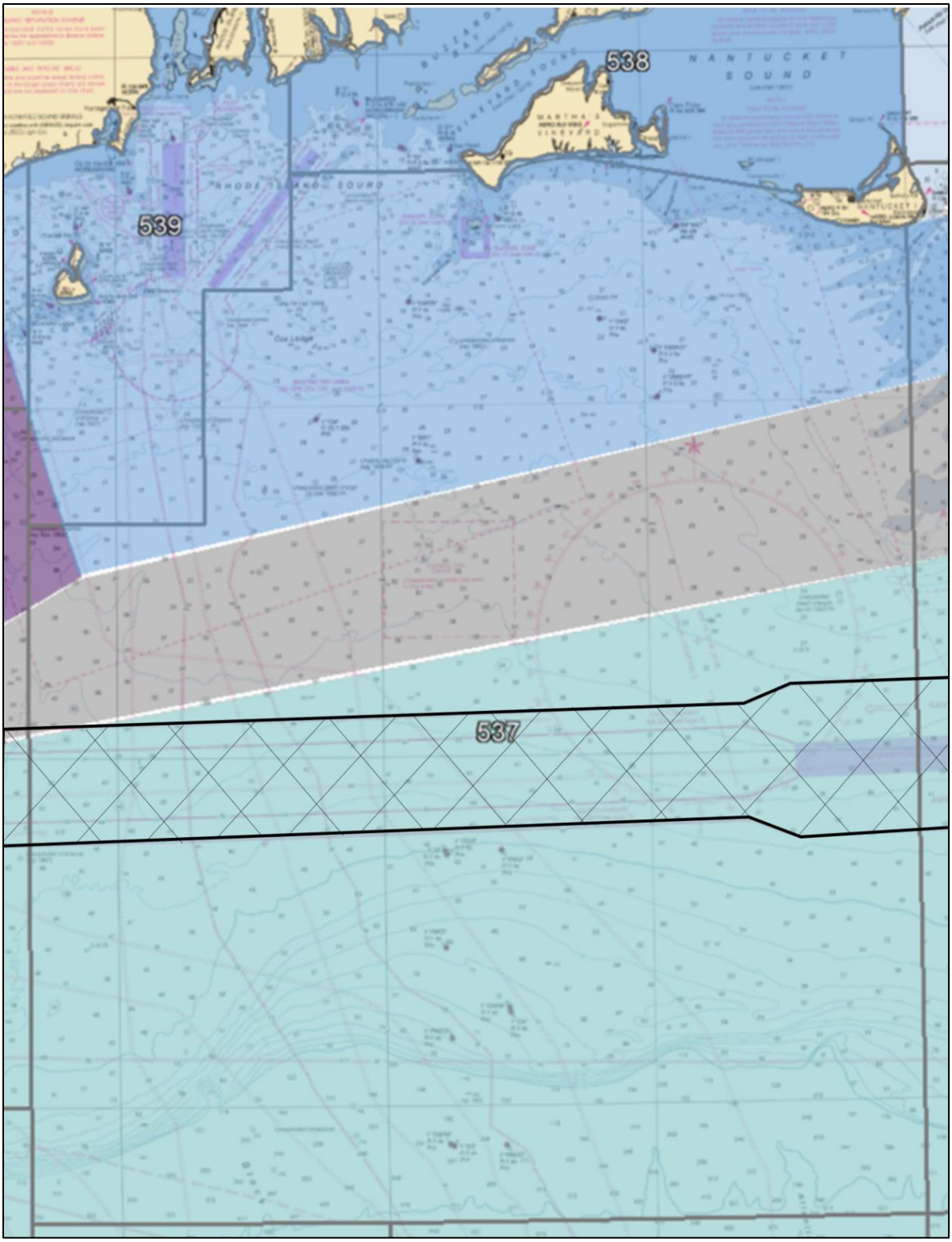


Figure 1: NOAA Statistical Area 537 (numbered and grey outline). From the north: blue area is Lobster Management Area (LMA) 2; grey area is the LMA 2/3 overlap, meaning both fisheries can operate there; teal area is LMA 3; purple western area is LMA 4. East to west shipping lane hatched in black.

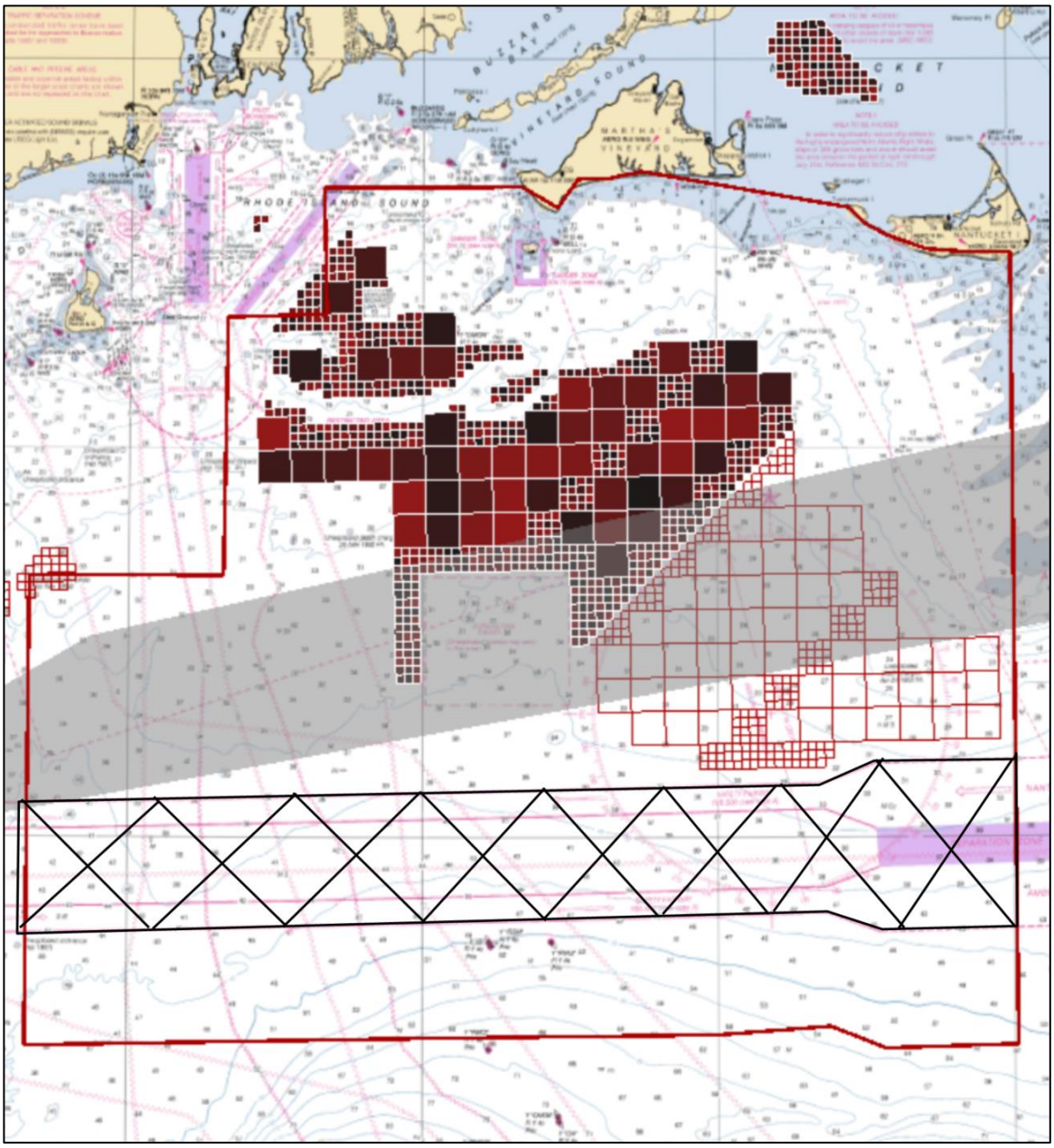
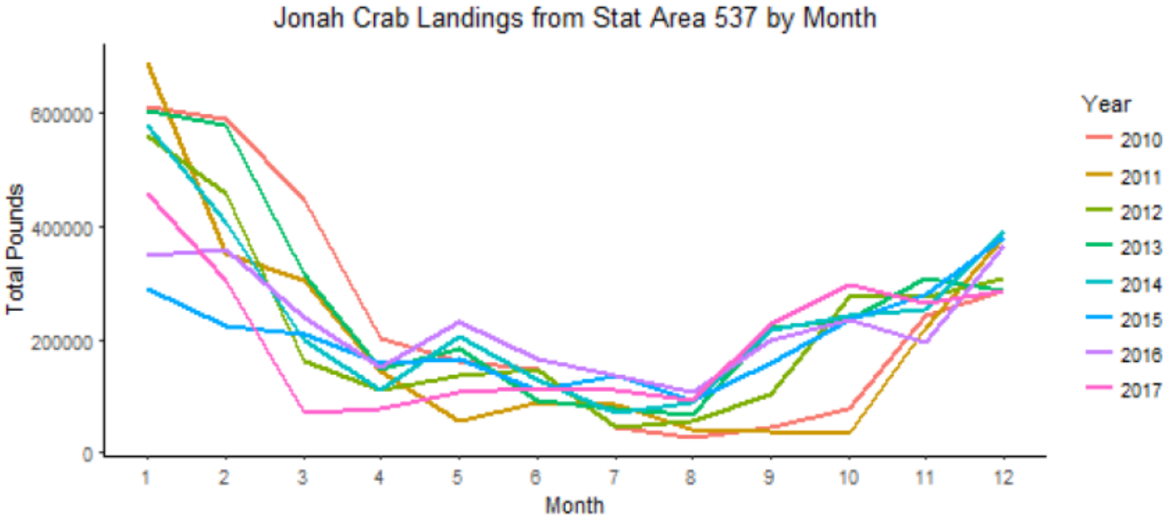
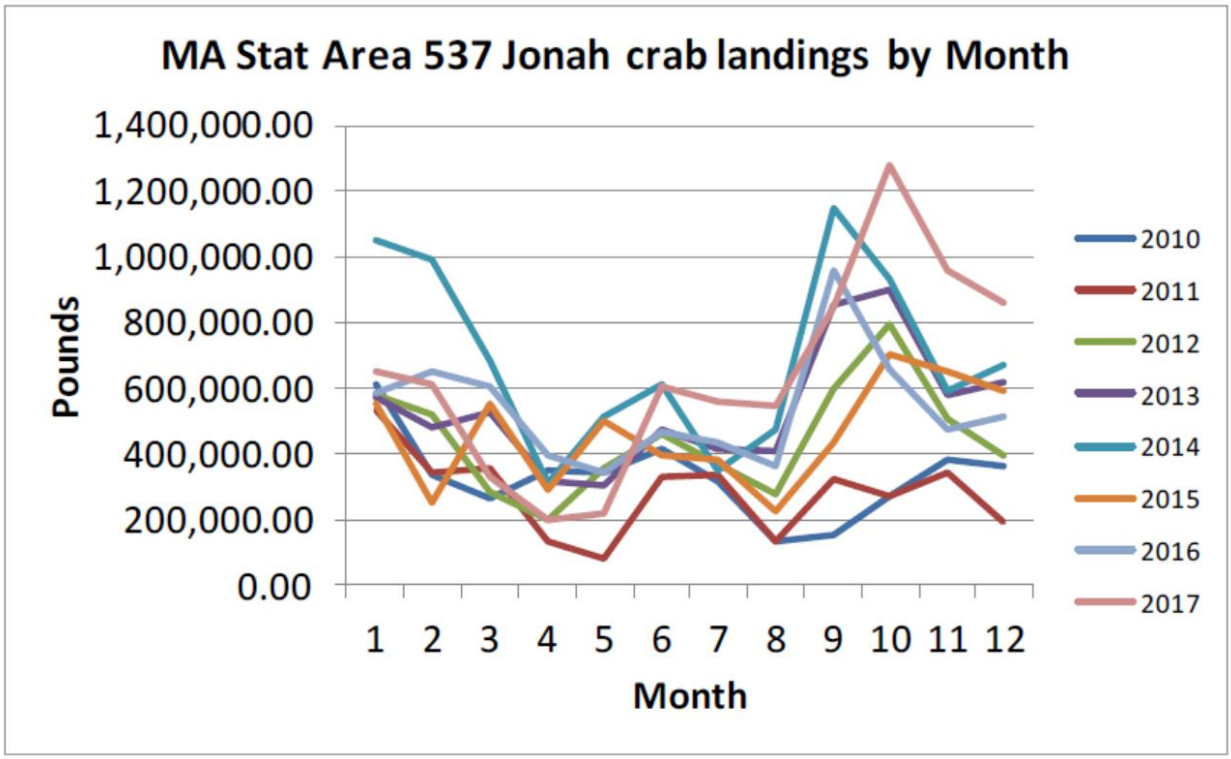


Figure 2: Subset of NOAA Statistical Area 537 proposed for modified regulations. Area outlined in red includes Area 537 to 10 miles south of the shipping channel (hatched). Gray area is proposed for reduced strength lobster/Jonah crab fishery weak-lines. Red/brown solid boxes are leased wind farm areas. Outlined boxes are areas up for lease December 2018



	RI Stat Area 537 % jonah Crab Landings by Month - 2010-2017											
	1	2	3	4	5	6	7	8	9	10	11	12
2010	73%	84%	83%	69%	52%	63%	42%	45%	44%	44%	90%	74%
2011	77%	72%	69%	68%	41%	51%	66%	45%	47%	38%	82%	80%
2012	81%	76%	81%	76%	71%	60%	40%	40%	61%	86%	78%	87%
2013	84%	88%	70%	61%	71%	53%	52%	43%	64%	68%	68%	69%
2014	78%	72%	57%	55%	66%	50%	46%	56%	72%	78%	69%	84%
2015	72%	78%	47%	78%	62%	49%	58%	49%	70%	80%	78%	79%
2016	76%	81%	71%	63%	62%	69%	77%	69%	85%	85%	83%	86%
2017	74%	80%	46%	40%	45%	53%	63%	65%	69%	70%	68%	63%

Figure 4: NOAA Statistical Area 537 Jonah crab landings from vessels landing in Rhode Island. Highlights in table mark the two largest landing months per year. Curtesy of M. Conor McManus, RIDEM.



	MA Stat Area 537 % Jonah crab Landings by Month - 2010 - 2017											
	1	2	3	4	5	6	7	8	9	10	11	12
2010	15%	9%	7%	9%	9%	11%	8%	3%	4%	7%	10%	9%
2011	16%	10%	11%	4%	2%	10%	10%	4%	10%	8%	10%	6%
2012	11%	10%	5%	4%	7%	9%	7%	5%	11%	15%	9%	7%
2013	9%	7%	8%	5%	5%	7%	6%	6%	13%	14%	9%	10%
2014	13%	12%	8%	4%	6%	7%	4%	6%	14%	11%	7%	8%
2015	10%	4%	10%	5%	9%	7%	7%	4%	8%	13%	12%	11%
2016	9%	10%	9%	6%	5%	7%	7%	6%	15%	10%	7%	8%
2017	8%	8%	4%	3%	3%	8%	7%	7%	11%	17%	13%	11%

Figure 5: NOAA Statistical Area 537 Jonah crab landings from vessels landing in Massachusetts. Highlights in table mark the two largest landing months per year. Curtesy of Robert Glenn, MADMF.

PRELIMINARY DATA - DO NOT CITE

Estimate of Federal Lobster Trap Allocations in Areas 2 and 3

Accounting for Annual Trap Reductions and Conservation Tax from Trap Transfers

AREA 2

FY	Annual Scheduled Trap Reduction	Traps Removed Due to Annual Trap Reduction	Area 2 Trap Reductions Without Conservation Tax Assessed	Traps Xferred	Reductions from Conservation Tax	Estimated Cumulative Allocation After Accounting for Annual Reductions + Conservation Tax**
2015	Baseline Qualified Allocations	0	118,188	0	0	118,188
2016	25%	29,547	88,641	7,310	731	87,910
2017	5%	4,396	83,515	4,140	414	83,101
2018	5%	4,155	78,945	4,022	402	78,543
*2019	5%	3,927	74,616	4,000	400	74,216
*2020	5%	3,711	70,505	3,000	300	70,205
*2021	5%	3,510	66,695	2,000	200	66,495

Yellow indicates most up to date real number pending final accounting for reductions during summer 2018 and effective May 1, 2019

* indicates preliminary data for these years and estimates on numbers of traps expected to be transferred based on real-time trends.

Overall numbers don't account for number of traps reduced annually due to relinquished/vacated permits

**Far right column represents cumulative allocations at the start of the fishing year on the corresponding line

Green indicates the current maximum number of traps that may be fished in Area 2 during the 2018 Fishing Year

AREA 3

FY	Annual Scheduled Trap Reduction	Traps Removed Due to Annual Trap Reduction	Area 3 Trap Reductions Without Conservation Tax Assessed	Traps Xferred	Reductions from Conservation Tax	Estimated Cumulative Allocation After Accounting for Annual Reductions + Conservation Tax**
2015	Baseline Qualified Allocations	0	145,433	0	0	145,433
2016	5%	7,272	138,161	13,892	1,391	136,770
2017	5%	6,839	129,932	11,650	1,165	128,767
2018	5%	6,438	122,328	7,133	713	121,615
*2019	5%	6,081	115,535	4,000	400	115,135
*2020	5%	5,757	109,378	3,000	300	109,078

Yellow indicates most up to date real number pending final accounting for reductions during summer 2018 and effective May 1, 2019

* indicates preliminary data for these years and estimates on numbers of traps expected to be transferred based on real-time trends.

Overall numbers don't account for number of traps reduced annually due to relinquished/vacated permits

**Far right column represents cumulative allocations at the start of the fishing year on the corresponding line

Green indicates the current maximum number of traps that may be fished in Area 3 during the 2018 Fishing Year

Figure 6: Lobster/Jonah Crab fishery trap reductions for LMAs 2 and 3. NOAA GARFO data